data covering the period between January 2000 and December 2005. The outcome variables captured cost of readmissions for a CVD-related condition following an index CVD-related admission. The covariate of interest was an indicator variable for a discharge AMA in the index hospitalization. The difference in the cost of readmissions (at 7-, 31-, 180-, and 365- day intervals) following formal discharges and discharges AMA was examined using Heckman sample selection models and log linear models. The Heckman sample selection model was found to provide a better representation of the data generation process. **RESULTS:** The sample included 443,049 patients, of which 24,823 (5.6%) were readmitted to the same hospital. Approximately 1% of the patients who were readmitted to the hospital during the study period left AMA on the index admission while 0.87% of those who were not readmitted left AMA ($p < 0.001$). The cost of the first readmission within 180 days was 9% ($p = 0.03$) higher for patients discharged AMA on index admission compared to those who were discharged formally. The cost of all readmissions within 180 days and 365 days were 10% ($p = 0.02$) and 9% ($p = 0.02$) higher for patients discharged AMA on index admission compared to those who were discharged formally. **CONCLUSIONS:** A self-discharge AMA among patients admitted for CVD is associated with higher readmissions costs when readmissions occur within 6 months or 1 year.

PCV67

EXPLORATORIES COST-CONSEQUENCE AND BUDGET IMPACT ANALYSIS OF SIROLIMUS-ELUTING STENT VS. ZOTAROLIMUS-ELUTING STENT FOCUSED ON THE RESTENOSIS AFTER DRUG-ELUTING STENT PLACEMENT UNDER THE PERSPECTIVE OF A BRAZILIAN PRIVATE PAYER

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OBJECTIVES: To identify the differences in the number of restenosis after the placement of sirolimus-eluting stent vs. zotarolimus-eluting stent and measure their related costs. **METHODS:** A literature review was conducted to identify meta-analysis or randomized clinical trials (RCT) that compared sirolimus-eluting (SES) and zotarolimus-eluting (ZES) stents. The clinical outcome of interest was angiographic restenosis after stent placement given that this is a surrogate ending point that may predict late mortality. The results of the SORT OUT III trial with 2,333 patients were used which demonstrated that SES offered a lower rate of restenosis vs ZES (0.25% vs 1.25%) (HR: 4.62; 95 CI, 1.33–16.1, $p = 0.02$) (Lassen, 2008). The perspective is from a private payer in Brazil. Local guidelines for economic evaluation of health care technologies were followed (Vianna, 2007). A decision model was built in Excel. Resource usage was raised in a panel with hospitals and valued by micro-costing based on public sources (CBHPM 5th edition, PROAHSA, Brasíndice and SIMPRO). Only direct costs were considered and reported in 2010 Brazilian Reais (USD1 = R$1.75). Discount rate was not applied given the 1-year horizon of the study. A 500,000 cohort was taken for a revascularization incidence of 932/100,000 (Ryen, 2009). A one-way sensitivity analyses was performed. **RESULTS:** Based on our model SES patients had fewer cases of restenosis vs ZES (12 vs 58).Total cost for the SES group was 1.87% below the one found in the ZES group (R$ 29,008 vs R$ 29,559). **CONCLUSIONS:** Results suggest SES patients had a risk reduction of restenosis compared with ZES patients. Besides SES offer a 1.87% potential reduction in costs.

PCV68

COST-EFFECTIVENESS OF GENOTYPE-DRIVEN ANTIPLATELET THERAPY FOR SECONDARY PREVENTION AFTER ACUTE CORONARY SYNDROME

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OBJECTIVES: Clopidogrel's effectiveness is reduced significantly for secondary prevention of thrombotic events after acute coronary syndrome (ACS) in patients with CYP2C19*2 mutations. Ticagrelor, a novel antiplatelet agent, does not require activation by the CYP2C19 enzyme and was superior to clopidogrel in a recent secondary prevention trial. In 2011, clopidogrel will lose its patent protection and likely will be substantially less expensive than ticagrelor. We aim to determine the cost-effectiveness of genotype-driven treatment, in which ticagrelor is prescribed in the presence of CYP2C19*2 mutations and clopidogrel in their absence, compared to prescribing ticagrelor universally. **METHODS:** A hybrid decision tree/Markov model was used to derive 30-year medical costs (in 2009 US$) and outcomes for a cohort of Medicare ACS patients of age 65 receiving either a genotype-driven or ticagrelor-only treatment. Outcomes included life years and quality-adjusted life years (QALYs) gained. Data comparing the clinical performance of ticagrelor and clopidogrel were derived from the PLATO study. Mortality and repeat myocardial infarction risk were estimated using Medicare inpatient claims of ACS patients. Costs and quality adjustments were derived from literature reviews. **RESULTS:** Over a 30-year period the incremental cost-effectiveness ratio (ICER) for universal ticagrelor was $8,827 per QALY compared to genotype-driven treatment. Universal ticagrelor and genotype-driven treatment had respective per capita costs of $10,096 and $8,868. Universal ticagrelor resulted in 0.14 QALYs gained per person relative to genotype-driven treatment. The ICER was most sensitive to the price of ticagrelor and the hazard ratio for death for ticagrelor compared with clopidogrel and remained below $50,000 per QALY until a monthly price of $737 for ticagrelor or a 0.93 hazard ratio for death for ticagrelor relative to clopidogrel. In probabilistic analyses, the ICER was below $50,000 per QALY in 97.4% of simulations. **CONCLUSIONS:** Prescribing ticagrelor universally increases quality-adjusted life expectancy for ACS patients at a cost below typically accepted thresholds.

PCV69

COST-EFFECTIVENESS ANALYSIS OF THE USE OF ROSUVASTATIN IN PREVENTION OF VASCULAR EVENTS IN THE MEXICAN POPULATION BASED ON THE JUPITER STUDY

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OBJECTIVES: To assess the cost-effectiveness of rosuvastatin 20 mg for prevention of major cardiovascular disease (CVD) events and mortality compared with no treatment alternative in a higher CVD risk population based on findings from JUPITER (Justification for the Use of statins in Primary prevention: an Intervention Trial Evaluating Rosuvastatin). **METHODS:** A probabilistic Monte Carlo simulation model estimated long-term cost-effectiveness of rosuvastatin therapy (20 mg daily) for the prevention of CVD mortality and morbidity. Using outcomes data from the JUPITER trial, the relative risk reduction of rosuvastatin 20 mg compared with no treatment was carried forward beyond the trial period. Baseline CVD event risk was age adjusted using Framingham equation. Cost- effectiveness was assessed from a payer perspective using direct medical costs and a lifetime horizon. Life tables and CVD-attributable mortality risk estimates were derived from Mexican national statistics data. Results are presented in U.S. dollars (exchange rate 13 MXN/dollar). **RESULTS:** The model was run for a hypothetical cohort of 100,000 patients at higher risk of CVD events (men 61%, age 67 years, mean Framingham risk 15%). Estimated quality adjusted life years (QALYs) gained with rosuvastatin therapy compared with no treatment was 31,723 over lifetime and 23,946 over a 20-year horizon. Over lifetime, 11,680 events were avoided: 6,076 non-fatal MIs, 2,596 non-fatal strokes, and 3,729 CVD deaths. The estimated incremental cost-effectiveness ratio (ICER) for cost per QALY was $8,91 for a lifetime horizon. For a hypothetical cohort similar to the overall JUPITER population, the ICER was $11,764/QALY over lifetime. For a 20-year horizon, similar ICERs were estimated for the higher-risk ($11,327/QALY) and JUPITER patient populations ($16,279/QALY). **CONCLUSIONS:** In a higher-risk Mexican population with the mean Framingham risk of 15%, treatment with rosuvastatin 20 mg daily is a cost-effective treatment alternative if the willingness to pay per QALY is higher than $8291.

PCV70

COST-EFFECTIVENESS OF ROSUVASTATIN 20 MG IN SECONDARY-PREVENTION PATIENTS IN THE UNITED STATES

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OBJECTIVES: To assess cost-effectiveness of rosuvastatin 20 mg treatment in secondary prevention of major cardiovascular disease (CVD) events and mortality for patients with a previous CVD event. **METHODS:** A probabilistic Monte Carlo simulation model estimated long-term cost-effectiveness of rosuvastatin therapy (20 mg daily) for prevention of CVD mortality and morbidity in patients with a previous CVD event (60% men, age 61 years, mean Framingham score 25%). The relative risk reduction observed with rosuvastatin 20 mg in the JUPITER (Justification for the Use of statins in Primary prevention: an Intervention Trial Evaluating Rosuvastatin) trial was used in this secondary-prevention setting based on available literature indicating similar efficacy of statins in primary- and secondary-prevention settings. The quarterly event probabilities were used to construct survival curves for patients in both the treatment and placebo groups. The relative risk of rosuvastatin was estimated and extrapolated beyond the trial duration. The event rates were age adjusted beyond the trial duration. The difference in baseline risk between the JUPITER trial population and population of interest was adjusted using Framingham score. A payer perspective was assessed with direct medical costs and up to a lifetime horizon. **RESULTS:** For a hypothetical cohort of 100,000 patients with a previous history of CVD and 25% Framingham risk score, estimated quality-adjusted life-years (QALYS) gained with rosuvastatin therapy compared with placebo was 54,319 over lifetime, and 39,252 and 15,341 over 20-year and 10-year horizons, respectively. Rosuvastatin 20 mg avoided 14,373 events over lifetime (8,327 non-fatal MIs, 3,218 non-fatal strokes, and 4,292 CVD deaths avoided). Rosuvastatin 20 mg dominated (more effective and less costly) over lifetime and 20-year time horizon. The incremental cost-effectiveness ratio for cost per QALY over 10 years was $18,549. **CONCLUSIONS:** Results indicate rosuvastatin 20 mg to be cost-effective in secondary-prevention treatment of patients with a history of CVD events.

PCV71

COST-EFFECTIVENESS OF 123I-MIBG (ADREVIEW) IMAGING FOR PATIENT TREATMENT SELECTION IN THE PREVENTION OF SUDDEN CARDIAC DEATH

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OBJECTIVES: To evaluate the costs, benefits, and incremental cost-effectiveness of non-invasive imaging of cardiac sympathetic innervation using AdreView in patients